Index to Volume 8, 1987

Authors

Ahmed, S. A. 171
Ashgriz, N. 205
Bar-Cohen, A. 218
Barrow, H. 119
Bejan, A. 15, 258
Ben-Dor, G. 303
Bontoux, P. 26
Brady, D. R. 16
Brownell, R. B. 37
Brown, A. 195
Bullen, P. R. 111
Calvert, J. R. 102, 287
Cheeseman, D. J. 111
Davis, M. C. 37
Dekam, E. I. 287
Duck, P. W. 149
Elperin, T. 303
Estafanous, S. 44
Extremet, G. P. 26
Fairbank, J. A. 211
Fairweather, M. 55, 132
Flack, R. D. 16, 37, 187
Gilchrist, A. R. 156
Givi, P. 195
Gregory-Smith, D. G. 156
Griffith, P. 218
Gupta, C. P. 107
Hamkinst, C. P. 16
Hargrave, G. K. 55, 132
Hassab, M. A. 44
Huachen, P. 72
Hussain, L. A. 111
Iacovides, I. 320
Igra, O. 303
Jackson, R. 139
Jang, J. Y. 182
Kakac, S. 71
Kaneko, K. 165
Kannapprakasam, B. 195
Kilham, J. K. 55, 132
Kothari, N. S. 243
Koyama, H. 145, 240
Kulacki, F. A. 228
Launder, B. E. 320
Loizou, P. A. 320
Mochimaru, Y. 235
Mohanty, A. K. 277
Morsi, Y. S. M. 293
Muralidhar, K. 228
Nakayama, A. 145, 240
Nezhati, K. 102
O'Meara, T. 313
Pope, C. W. 119
Poulikakos, D. 93, 313
Prakash, S. 107
Raghunathan, R. 165
Rice, J. G. 37, 187
Roach, P. E. 82
Roux, B. 26
Ruder, Z. 218
Ruffell, A. E. 111
Sahin, B. 124
Saini, J. S. 107
Schnipke, R. J. 187
Setoguchi, T. 165
Shah, M. M. 326
Shiina, Y. 64
Shiying, Z. 72
Skillings, S. A. 139
Solanki, S. C. 107
Sorour, M. M. 44
So, R. M. C. 171, 211
Thorley, A. R. D. 3
Tiley, C. H. 3
Turner, J. T. 149
Venkateshan, S. P. 243
Viskanta, R. 277
Vovos, A. 93
Wang, M. T. 182
Ward-Smith, A. J. 124
Warren, M. D. 248
Yener, Y. 71

Titles

Approximate solution of one-dimensional heat difussion problems via hybrid profiles, S. P. Venkateshan and N. S. Kothari 243

Behaviour of carbon dioxide jets in a confined swirling flow, R. M. C. So and S. A. Ahmed 171

Binary collision dynamics of fuel droplets, N. Ashgriz and P. Givi 205

Bubble size effects in foam, J. R. Calvert and K. Nezhan 102

Buoyancy-dominated laminar convection and radiation transfer in rod arrays, A. K. Mohanty and R. Viskanta 277

Compressible Coanda wall jet—an experimental study of jet structure and breakaway, The, D. G. Gregory-Smith and A. R. Gilchrist 156

Computer predictions of three-dimensional particle trajectories in gas turbines, B. Kannapprakasam and A. Brown 195

Determination of pipe contraction pressure loss coefficients for incompressible turbulent flow, The, P. R. Bullen, D. J. Cheeseman, L. A. Hussain and A. E. Ruffell 111

Determination of principal characteristics of turbulent swirling flow along annuli: part 4: an asymptotic solution, Y. S. M. Morsi and B. R. Clayton 293

Developing laminar flow in a semiporous two-dimensional channel with nonuniform transpiration, M. M. Sorour, M. A. Hassab and S. Estafanous 44

Effect of temperature gradient locally applied on a long horizontal cavity, G. P. Extremet, P. Bontoux and B. Roux 26

Effects of inlet conditions and surface roughness on the performance of transitions between square and rectangular ducts of the same cross-sectional area, E. I. Dekam and J. R.Calvert 287

Experiments on the cooling by natural convection of an array of vertical heated plates with constant heat flux, T. O'Meara and D. Poulikakos 313

Finite element analysis of the viscous flow in a vaned radial diffuser, R. J. Schnipke, J. G. Rice, and R. D. Flack 187

Flow visualization in a laboratory vaned diffuser, R. B. Brownell, R. D. Flack, M. C. Davis and J. G. Rice 37

Forced convection heat transfer in doubly connected ducts, S. C. Solanki, S. Prakash, J. S. Saini and C. P. Gupta 107

Forced convective heat transfer from premixed flames—Part 2: Impingement heat transfer, G. K. Hargrave, M. Fairweather and J. K. Kilham 132

Forced convective heat transfer from premixed flames, G. K. Hargrave, M. Fairweather and J. K. Kilham 55

Generation of nearly isotropic turbulence by means of grids, The, P. E. Roach 82

Head-on collision of normal shock waves in dusty gases, T. Elperin, G. Ben-Dor and O. Igra 303

Heat transfer in a tapered passage, Y. Shiina 64

Improved general correlation for critical heat flux upflow in uniformly heated vertical tubes, M. M. Shah 326

Integral treatment of buoyancy-induced flows in a porous medium adjacent to horizontal surfaces with variable wall temperature, A. Nakayama and H. Koyama 240

Laser velocimeter turbulence measurements in shrouded and unshrouded radial flow pump impellers, R. D. Flack, C. P. Hamkinst and D. R. Brady 16

Major parameter effects on isothermality in horizontal steam-generated tubes at low- and moderate steam qualities, Z. Ruder, A. Bar-Cohen, and P. Griffith 218

Measurements of streamwise vorticity using a vane vorticity meter, P. Huachen and Z. Shiying 72

Natural convection on one side of a vertical wall embedded in a Brinkman-porous medium coupled with film condensation on the other side, A. Vovos and D. Poulikakos 93

New way for simulation of transient natural convection heat transfer, Y. Mochimaru 235

Numerical computation of turbulent flow through a square-sectioned 90° bend, H. Iacovides, B. E. Launder, and P. A. Loizou 320

Pressurized water reactor blockage—prediction of laminar flow and temperature distributions following a loss of coolant accident, P. W. Duck and J. T. Turner 149

Robust "time-marching" solver for one-dimensional nucleating steam flows, A. S. A. Skillings and R. Jackson 139

Simple analysis of flow and heat transfer in railway tunnels, A. H. Barrow and C. W. Pope 119

Solution of the autoclave discharge problem by the Lax-Wendroff method, M. D. Warren 248

Stability of mixed convection flow, K. Muralidhar and F. A. Kulacki 228

Steady film condensation and boiling adjacent to a body of arbitrary shape in a porous medium, A. Nakayama and H. Koyama 145

Thermodynamic design of heat and mass transfer processes and devices, The, A. Bejan 258

Transient response of crossflow heat exchangers with one fluid mixed, J. Y. Jang and M. T. Wang 182

Unsteady and transient flow of compressible fluids in pipelines—a review of theoretical and some experimental studies, A. R. D. Thorley and C. H. Tiley 3

Upstream and downstream influence of pipe curvature on the flow through a bend, J. A. Fairbank and R. M. C. So 211

Use of perforated plates to control the flow emerging from a wide-angle diffuser, with application to electrostatic precipitator design, The, B. Sahin and A. J. Ward-Smith 124

Wells air turbine subjected to inlet flow distortion and high levels of turbulence, The, S. Raghunathan, T. Setoguchi and K. Kaneko 165

Keywords

aerodynamics shock waves 139
analytic pressure loss coefficients 111
annuli 293
approximating profile 243
arbitrary shape 145
array of heated plates 313
asymptotic solution 293
boiling 326
boundary layer 240
Brinkman-porous medium 93
bubble size distribution 102
buoyancy 240
buoyancy-driven gas flow 26
burnout 326
carbon dioxide jets 171
CHF 326
circumferential anisothermality 218
Coanda effect 156
combined convection 277
compressible wall jet 156
computational fluids 187
concentric tubes 293
confined jets 171
convection 132
critical Rayleigh number 228
crossflow heat exchangers 182
curvature effects 211
curved flows 211
cusped channel 149
doubly connected cuts 107
downstream influence 211
droplet collision 205
ducts 287
dusty gases 303
Eigen values 228
electrostatic precipitators 124
entropy generation minimization exergy analysis 258
evaporating droplets 205
experimental pressure loss coefficients 111
film boiling 145
film condensation 93, 145
finite difference methods 26
finite element 187
flames 132
flow 102
flow computation 320
flow regimes 218
fluid transients 3
foam 102
friction factor 107
fuel rod cladding 149
fully developed laminar fluid flow 149
gas flow 124
gas pipelines 3
grids 82
heat balance integral 243
heat diffusion 243
heat transfer 119, 132, 149, 277
impingement 132
incompressible pipe flow 111
inhomogeneous flows 171
inlet conditions 287
integral method 240
isotropic turbulence 82
linear stability 228
liquids 326
local temperature gradient 26
long horizontal cavity 26
loss of coolant accident 149
methane 132
mixed convection 228
mixed fluid 182
modified Orr-Sommerfeld equations 228
natural convection 93, 235, 313
nucleating steam flows 139
numerical diffusion 187
numerical methods 187
numerical simulation 26, 235
Nusselt number 107
orthonormalization 228
particle trajectories 195
perforated plates 124
phase change 243
pipe bends 211
pipe contractions 111
porous media 240
porous medium 145
prediction 326
pressurized water reactor 149
radial flow 16
radiation 277
railway tunnels 119
random choice method 303
Reynolds number 107
rheology 102
rod arrays 277
second-law analysis 258
shock cells 156
shock waves 303
shrouded pump impellers 16
similarity solution 145
spray combustion 205
square-sectioned bend 320
stagnation point 132
steady turbulent flow 119
steam turbines 139
steam-generating tubes 218
surface roughness 287
swirl 293
swirl decay 293
swirling flow 171
thermally developed temperature field 107
time-marching solver 139
transient heat transfer 235
transient response 182
transitions 287
turbomachinery 187
turbomachines 195
turbulence 156, 293
turbulence generation 82
turbulence measurements 16
turbulent flow 320
turbulent mixing 171
two-dimensional flow 156
two-phase flow 218
two-zone furnaces 26
underexpanded jet 156
unshrouded pump impellers 16
unsteady compressible flow 3
upstream influence 211
vertical wall 93
wide-angle diffuser 124

Book reviews

Annual Review of Numerical Fluid Mechanics and Heat Transfer. Volume 1, ed. by T. C. Chawle 336
BASIC Programs for Steam Plant Engineers, by V. Ganapathy 123
Chemical Engineering Guide to Heat Transfer, The, ed. by K. J. McNaughton 92
Computational Heat Transfer, by Y. Jularia and K. E. Torrance 336
Computational Methods in Viscous Flow III, ed. by W. G. Habashi 144
Convection Heat Transfer, by A. Bejan 15
Encyclopedia of Fluid Mechanics. Volumes 1 and 2, ed. by Nicholas P. Cheremisinoff 253
Fluid Mechanics Measurements, by R. J. Goldsmith 78
Fundamentals of Heat Exchanger and Pressure Vessel Technology J. P. Gupta 336
Fundamentals of Hot Wire Anemometry, by C. G. Lomas 101
Handbook of Hydraulic Resistance, by I. E. Idelchik 78
Handbook of Radiative Heat Transfer in High-Temperature Gases, ed. by R. I. Soloukhin 336
Heat Conduction, S. Kakac and Y. Yener 71
Heat Transfer 1986—Proceedings of the Eighth International Heat Transfer Conference, ed by C. L. Tien, V. P. Carey and J. K. Ferrell 54
Heat Transfer and Fluid Flow in Rotating Machinery, ed. by W.-J. Yang 337
Heat Transfer in High Technology and Power Engineering, ed. by W.-J. Yang and Y. Mori 337
Heat Transfer in Turbulent Fluid Flows, by A. Zukaksukas and A. Slanciauskas 338
High Temperature Heat Exchangers, ed. by Y. Mori, A. E. Sheindin and N. Afgan 106
Radiation and Combined Heat Transfer in Channels, by M. Tamonis 339
Stability of Parallel Gas Flows, by B. K. Shivamoggi 252
Technical Guide to Thermal Processes, by J. Gosse 164
Turbulence and Random Processes in Fluid Mechanics, by M. P. Landahl and E. Mollo-Christiansen 252
Turbulent Measurements and Flow Modeling, ed. by C. J. Chen, L.-D. Chen, and F. M. Holly, Jr. 339
Turbulent Shear Flows 4—Selected Papers from the Fourth International Symposium on Turbulent Shear Flow, ed. by L. J. S. Bradbury *et al.* 76
Vaporizers, Selection Design and Operation, by R. A. Smith 340